DOCUMENT RESUME

ED 252 371 RC 015 138

AUTHOR Barker, Bruce; Logan, Suzanne
TITLE Small High Schools Curricula: Alternative Delivery Systems for Meeting Essential Elements.
PUB DATE Feb 85
NOTE 10p.; Paper presented at the Annual Conference of the Texas Association of Secondary School Principals (15th, Austin, TX, February 3-5, 1985).
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Communications Satellites; Cooperative Programs; *Core Curriculum; Correspondence Study; Educational Technology; *High Schools; Microcomputers; *Nontraditional Education; *Required Courses; Secondary Education; *Small Schools; *State Standards
IDENTIFIERS Electronic Blackboards; Interactive Video; *Texas

ABSTRACT

The option for small high schools to consider non-traditional approaches to instruction may be a viable way to meet the instructional needs of individual students in Texas' rural communities and comply with the curriculum requirements specified in Chapter 75 (recently passed by the 67th Texas Legislature). Effective in 1985, school districts will be required to provide each student with the opportunity to participate in 30 plus required courses which make up the "well-balanced secondary curriculum." The Texas Education Code makes allowance for smaller schools and the Interim Commissioner has stated that a teacher doesn't have to be hired to offer a course. Approved alternatives include, but are not limited to, cooperatives, contracting, using technological advancements (e.g., interactive television and computer-assisted instruction) and adjusted school day or week. Pulling information from a variety of sources, examples are provided of alternative instructional systems: Cooperation Sharing--Bringing Vocational Education to the Student (Mott School District #6, North Dakota); Correspondence Study (Liberty High School, Washington); Electronic Blackboards (South Oak Cliff High School, Texas); Interactive Videotape (Winthrop Rockefeller Model Secondary Project, Arkansas); Cooperation between Colleges and Schools (Mildred High School-Navarro Junior College); Satellite Transmitted Academic Resources (Texas, Utah, Kansas, Alaska, Missouri, and Arizona); and Microcomputers and Individualized Courses. Addresses of contact persons are appended. (BRR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED252371

SMALL HIGH SCHOOLS CURRICULA: ALTERNATIVE DELIVERY SYSTEMS FOR MEETING ESSENTIAL ELEMENTS

Paper Presented at 15th Annual Conference

of the

Texas Association of Secondary School Principals

February 3-5, 1985

Austin, Texas

by

Dr. Bruce Barker
National Center for Smaller Schools
Texas Tech University
Lubbock, Texas 79409

Suzanne Logan
Assistant Director
Division of Continuing Education
Texas Tech University
Lubbock, Texas 79409

FEB 1985
RECEIVED
ERIC/CRESS

CE 015138

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Bruce Barker
Suzanne Logan
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
✓ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

SMALL HIGH SCHOOLS' CURRICULA: ALTERNATIVE DELIVERY SYSTEMS FOR MEETING ESSENTIAL ELEMENTS

By

Bruce Barker and Suzanne Logan

Small High Schools in Texas

The challenge of offering a broad and varied curriculum is one of the most frequent concerns associated with small high schools in the United States (Barker and Muse, 1983; O'Neil and Beckner, 1982). Although it is true that larger high schools also face obstacles in planning and organizing their curricula, the problem is generally of greater magnitude in the small high school where lower enrollments increase per-pupil cost of programs, facilities, and certified personnel.

Texas has more independent school districts than any other state in the nation (Williams and Hughes, 1980). Of the state's 1100 districts, 82.5 percent enroll fewer than 2500 students and almost 60 percent (657 districts) enroll fewer than 1000. According to statistics from the University Interscholastic League (1984), 757 or two-thirds of Texas' public high schools enroll fewer than 650 students each. In fact, 329 (28.6 percent) of the state's high schools have fewer than 135 students and an additional 217 (18.9 percent) enroll less than 275.

The Impact of Chapter 75 on Small High Schools

The mandated implementation of Chapter 75 (House Bill 246) passed by the 67th Texas Legislature will have a definite impact on smaller high schools in the state, particularly in their efforts to provide all of the courses required for a "well-balanced secondary curriculum." Effective fall 1985, school districts will be required to provide each student the opportunity to participate in some 30 plus required courses which make up the "well-balanced secondary curriculum" (TEA, 1984). This requirement should not be difficult for larger schools which likely already provide each of the "required" courses, as well as many additional offerings. On the other hand, the state's small high schools--especially 1A and 2A schools--will be challenged.

For the smaller schools, the Texas Education Code does make allowances for options to offering required courses. Districts with small high schools are permitted to make use of alternative instructional delivery systems, provided such instruction meets the essential elements for the respective course(s) outlined in Chapter 75 and is taught in accordance with the requirements of Chapter 75. When an alternative instructional approach is adopted in order to offer a required course(s), the fees for student participation are to be borne by the district. The cost, however, may in reality be much less than that of hiring a teacher (TEA, 1984) to offer the course(s) in the traditional fashion. Dr. William Kirby, Interim Commissioner, Texas Education Agency, has clearly stated,"To offer a course, you don't have to hire a teacher." (Levinson, 1984).

Approved Alternative Delivery Systems

The allowance for small high schools to consider non-traditional approaches to instruction may be a viable option for meeting the instructional needs of individual students in Texas' rural communities which, at the same time, complies with the curriculum requirements outlined in Chapter 75. Approved alternatives for providing non-traditional instruction to small schools in the state include, but are not limited to, the following (TEA, 1984):

(1) Cooperatives. Two or more districts may arrange for the cooperative use of personnel, facilities, or materials and equipment.
(2) Contracting. Districts may contract for the delivery of instruction with other school districts or other institutions approved by the Central Education Agency.
(3) Technology. Districts may choose from a variety of technological advancements, including but not limited to, computer-assisted instruction, interactive television, and video-or audio-taped courses.
(4) Adjusted school week. One or more districts may deliver instruction within an adjusted school day or school week. A district wishing to implement the adjusted school day or school week concept shall submit a plan for implementation to the commissioner of education for approval.
(5) Other. Districts are encouraged to identify and utilize other procedures for providing instruction in courses where limited numbers of students will participate.

The Use of Correspondence Study Courses

The Texas Education Code also allows resident students the opportunity to apply a total of two units of credit earned through correspondence study toward graduation requirements. This provision affords small high schools a means to enrich their curricula without the high cost of hiring an additional teacher(s) or utilizing expensive technologies. Approved correspondence study courses are those offered by Texas Tech University and the University of Texas at Austin. High school correspondence study courses from each institution, as presently offered, are approved by the Texas Education Agency. Present approval continues through June 1985. In compliance with Chapter 75, administrators at both Texas Tech and UT-Austin are reviewing each of their high school correspondence courses to assure that they reflect the essential elements outlined in the legislation. During this spring, all courses are to be submitted to the Commissioner's Office of TEA for approval. In August 1985, both universities will distribute to high school counselors updated catalogs listing courses that have TEA approval. The approval will testify that every course listed covers the essential elements as required by law.

The use of approved correspondence courses holds great promise as an alternative to expand course offerings in small high schools at a fraction of the cost of advanced technologies or additional personnel. Tuition and materials costs (not including textbooks) at Texas Tech University are $42.00 for one-half unit and are $47.25 at the University of Texas--Austin.

EXAMPLES OF ON-GOING ALTERNATIVE INSTRUCTIONAL SYSTEMS

Many innovative practices do exist among small high schools in this country to enhance curricular offerings through non-traditional delivery systems. The following information provides brief descriptions of selected models which are either operative in Texas or have application among the state's small high schools. Information about these programs have been taken from three major sources: The School Problem-Solver's Guide to Distance Education by Cynthia Levinson of the Educational Development Laboratory, 1984: "A Report of Innovative Rural School Programs in the United States," by Bruce Barker and Ivan Muse, ERIC Document ED 238-663, 1984; and Creative Ideas for Small Schools by Paul Salmon and Walter Turner, American Association of School Administrators, 1981. Names and addresses of individuals to contact for more detailed information about specific programs are listed in the Appendix.

Cooperation Sharing--Bringing Vocational Education to the Student

Mott School District #6 (300 students) located in Mott, North Dakota, cooperated with six other small districts in the creation of a Multi-district Vocational Mobile Program which has brought vocational education opportunities to students living in isolated rural settings. Mobile classrooms (travel trailers) move each semester to a different school and permit high school students to study welding, carpentry, nursing, or institutional food services. The programs are exploratory in nature and are offered only to juniors and seniors. Instructors travel with trailer units, bringing programs to students rather than the alternative of extensive busing of students to programs. (Barker and Muse, 1984)

Correspondence Study--Increasing Course Offerings by 600 Percent

Liberty High School (180 students) in Spangle, Washington, has expanded elective course offerings from less than 15 courses to over 100 courses through the use of supervised correspondence study. Selected high school students are allowed to enroll in one or two correspondence courses each semester, which are financed by the school. Students participating in correspondence study courses attend a "correspondence class" supervised by a member of the high school faculty who monitors student work, maintains records of students' progress, provides assistance or tutoring when able, and proctors exams sent from the correspondence school. Between 30-40 students participate in this program each year. Many have developed interest in careers they would not otherwise have studied. (Barker and Muse, 1984)

Electronic Blackboards--Teaching Via Telephone Lines

Although South Oak Cliff High School (1800 students) in Dallas, Texas, is not considered a small high school, the school does make good use of teleconferencing technology which has application in small schools. Through the use of an electronic blackboard and appropriate teleconferencing equipment, a teacher is able to teach a course to students located at several sites. From one location the teacher can talk to students and write questions or diagrams on the board which is seen at the other locations.

"Chalk marks" on a pressure sensitive board are sent over telephone lines to television sets at distant sites. Verbal communication is transmitted in all directions over a second set of phone lines. The cost of the revolutionary blackboard is about $12,000. (Levinson, 1984).

Interactive Videotape

Videotape technology has been around for several years. To provide videotape instruction, meaningful content information must be produced and stored on a video cassette cartridge which may be displayed via a video monitor. In order for the material to be interactive, the student must be able (1) to contact and speak with a subject matter expert(s) anytime while viewing the videotape, or (2) to view printed material and respond to previously determined questions. The Winthrop Rockefeller Model Secondary Project administered by the University of Arkansas allows groups of students to study trigonmetry, physics, or chemistry through an interactive video system. Students are provided printed material for reading and studying along with viewing the video-tape. A distance instructor can also be contacted by telephone to answer questions. The costs of producing specialized videotapes can be very expensive, depending upon the quality of the product desired. (Levinson, 1984).

Cooperation between Colleges and Schools

Mildred High School (300 students) has entered a contractual arrangement with Navarro Junior College that allows senior students to enroll in selected college level courses on the Navarro Junior College campus, 9½ miles away from the high school campus. During the 1984-85 school year, over 20 seniors enrolled in 18 different courses at Navarro. A total of $10,000 was budgeted by the school for the program. The contractual arrangement reduced staffing needs at the high school by 2½ positions, saving the district over $35,000 in personnel costs. All courses taken have been in compliance with Chapter 75. Participating students receive dual credit--both high school and college--for their completed work. (May, 1984)

Most small high schools in Texas are not conveniently close to a college or university campus to consider such an arrangement. An adapted version of this model, however, would be for senior students to enroll in college level correspondence courses as a resource to receive both high school and college level credit.

TI-IN Network--Satellite Transmitted Academic Resources

The Texas Interactive--Instructional Network (TI-IN) delivery system will offer in the near future satellite transmitted academic courses from accredited agencies and institutions to students, support staff, teachers and administrators in public schools throughout the state. Actual programming of high school courses is expected to begin in September, 1985. TI-IN Network will use state-of-the-art satellite technology to provide one-way video and two-way audio hook-up to subscribing schools. Live broadcasts are to be received at school buildings or education service centers via downlinked dishes.

Audio response will be via phone lines incorporating audio-teleconferencing technology. All high school courses offered through this system will be in harmony with TEA essential elements. Costs to establish a school building as a receiving site vary depending upon the location of the shcool; number of rooms to be equipped with monitors, etc.; and the ADA reported by the school. (Nix, 1984)

Systems similar to TI-IN Network are presently operative in Utah, Kansas, Alaska, Missouri, and Arizona.

Microcomputers and Individualized Courses

The potential of microcomputers as an instructional tool hold great promise as a vehicle for the delivery of educational materials. A countless array of educational software is now on the market with vast quantities still under development. Unfortunately, most software available is specialized in both scope and content, not providing adequate depth or coverage for a one-half credit of instruction. Once courses have been developed, an individual student will be able to sit at a terminal and progressively work through a required course. Appropriately designed courses will permit students to take more control of their own learning, study at their own pace, and review material as desired. For the present, however, small schools will have to await the development of needed software.

CONCLUSION

In this paper we have attempted to briefly outline some alternative approaches to the delivery of instruction in small high schools. The range of models presented reflect some approaches which are new and innovative as well as some which have been available for many years. The models presented are not inclusive. Other practices, such as videotex, video disc, and telephone-conferencing, to name a few are also available.

Small schools can have adequate, even quality curricula. One challenge facing administrators of small schools, who operate on limited budgets with limited staff, is to look beyond that which is considered traditional instruction for new and innovative ways to enhance learning opportunities for students.

APPENDIX

Listed below are names and addresses of individuals to contact for more specific information about some of the programs mentioned in this report.

Correspondence Courses

Suzanne Logan, Assistant Director
Division of Continuing Education
Texas Tech University
Lubbock, Texas 79409
(806) 742-2352

Frankie Westbrook
Extension and Instructional Materials Center
University of Texas
Austin, Texas 78712
(512) 471-5616

Mr. Tom Feldhausen
Superintendent,
Liberty School District
Liberty High School
Spangle, Washington

Texas Interactive--Instructional Network

Pat Tinsley
President, TI-IN
533 Hollister, Suite 320
Houston, Texas 77040
(713) 690-4144

Southwest Educational Development Laboratory

Dr. Martha L. Smith, Division Director
Southwest Educational Development Lab
211 East 7th Street
Austin, Texas 78701

Electronic Chalkboard

Dr. Fredrick Todd
Principal, South Oak Cliff High School
1601 S. Marsalis Avenue
Dallas, Texas 75216
(214) 371-4391

Dr. Glen Wilde
Extension and Life Span Learning
Utah State University
Logan, Utah 94321

College Courses for High School Students

Dr. Joseph D. May
Dean of Students
P.O. Box 1170
Navarro College
Corsicana, Texas 75110
(214) 874-6501

References

1. Barker, Bruce and Ivan Muse. (February, 1984) "A Report of Innovative Rural School Programs in the United States." Paper presented at the Seventh Annual Conference of the Poeple United for Rural Education. Des Moines, Iowa. ERIC Document ED 238 663.

2. Barker, Bruce and Ivan Muse. (October, 1983) "Research on K-12 Rural School Systems in the United States." Paper presented at the 75th Annual Conference of the Rural Education Association. Manhattan, Kansas. ERIC Document ED 234 973.

3. Levinson, Cynthia. (1984). The School Problem-Solver's Guide to Distance Education. Austin, Texas: Southwest Educational Development Laboratory.

4. May, Joseph. (July, 1984). "A High School/Community College Cooperative." Presentation at 25th Annual Community Schools Summer Workshop. Austin, Texas.

5. Nix, Sandy. (November, 1984). "TI-IN Network: Satellite Transmitted Academic Resources." Presentation at Fifth Annual Conference for Administrators at Community Schools. Lubbock, Texas.

6. O'Neil, Linda and Weldon Beckner. (Winter 1981-82). "Rural Education: Past and Present." The Rural Educator, 17-27.

7. Salmon, Paul and Walter Turner. (1981). Creative Ideas for Small Schools. Arlington, Virginia: American Association of School Administrators.

8. Texas Education Association. (1984). State Board of Education, Rules for Curriculum. Austin, Texas.

9. University Interscholastic League, (1984). Constitution and Rules: University Interscholastic League. Austin, Texas: Division of Continuing Education, University of Texas at Austin.

10. Williams, Jeffrey W. and Warren A. Hughes. (1980). Education Directory, Fall 1980: Local Education Agencies. National Center for Education Statistics. Washington, D.C.: Government Printing Office, 1980.